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UPStation GXT2U Series

(700 to 3000VA)

Uninterruptible Power System

Effective From 5-Jul-2001

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Description

The UPStation GXT2U on-line single-phase Uninterruptible Power System is available in RackTower (RT) configuration which can be installed free standing (option included) or rackmounted. GXT2U is available in the following power ratings: 700VA, 1000VA, 1500VA, 2000VA and 3000VA in 230V – 120V models are also available on request.

The main standard features include:

- **True on-line** configuration to ensure that the critical load is always supplied with **sine-wave**, computer grade power.

- **RackTower construction** provides the flexibility required to cover all installations – the same unit can be rackmounted or used as minitower (options included).

- **Only 2U high** up to 3000 VA (including battery) – all units are 19'' wide to fit rack enclosures.

- **Higly increased back-up time**: up to 17 minutes at full load

- **Communications interface** providing both **opto-isolated shutdown signals** and **RS232** protocol information transfer. This allows the GXT2U to communicate with a wide range of computers (such as the AS400) and other devices, providing a means to interrogate the UPS remotely in order to monitor status and alarms, or even to remotely control UPS operation.

- **Compatible with Multilink Software**: it's included in CD format or it can be downloaded free of charge from Liebert's WEB site www.liebert.com. This software allows "in-band" single or multiple server shutdown through serial communications or SNMP. It can be used across mixed operating platforms and network topologies, allowing your power protection software to expand as your network develops.

- **Communication cable** is included for use with Multilink Software.

- **Compatible with Intellislot SNMPWEB Card**: a user installable internal adapter that provides the hardware and software necessary to communicate with any IP based network using Ethernet communication. Connection to the network is made by a cable provided by the customer.

- **Output parameters and alarms user configurable**: it's possible to select the output voltage out of four different ratings(200/208/220/230/240V), to enable or disable Auto Restart, to select output frequency (50 or 60Hz – GXT 2U acts as Frequency Converter), to modify the low battery warning, to select how often you want the automatic test to occur or to disable it.

- **External 2U battery cabinets available -** 48V 2U battery cabinet for 700, 1000, 1500, 2000 VA models and 72V 2U battery cabinet for 3000VA model.

- **Hot swappable and easy user replaceable batteries** allow batteries to be easily replaced on site without removing the UPS from the rack enclosure, reducing the cost of ownership and minimising the time for wich the critical load is unsupported.

- **Wide input voltage window**: 119/159 to 280V AC variable based upon output load.

- **Input cables**: The 230V 3000VA is supplied with the input cable. The other 230V models are not supplied with the input cable (use the cable provided with your server) – 120 models are all supplied with US standard input cable.

- **Black start facility**.

- **Microprocessor control** of the system to monitor input, output and battery conditions and respond instantly to any changes.

- **Manual transfer to bypass** facility via front panel controls – Bypass assures continuity of power to critical loads during system problems or maintenance.

- **External bypass** – Liebert Micro POD or the new Liebert 2U POD allow you to manually transfer your connected equipment to utility power via a maintenance bypass switch, permitting scheduled maintenance or UPS replacement without power disruption – Both all are available in 10A and 16A ratings.

- **Input transient suppression and filtering** to help prevent damage to the load from mains-borne noise or spikes, even whilst on bypass.

- **Pulse width modulated (PWM) inverter** to provide a voltage and frequency regulated supply to the load over all rated load, mains and batery conditions.
- **Power-factor-correcting** input converter stage to reduce the input current distortion.
- **Input and output RFI filtering** to ensure that the electrical noise seen by the load (and the mains supply) is reduced to accetable levels.
- **Battery test feature** automatically carried out on start-up and thereafter by-weekly to indicate when batteries need to be replaced. The battery test can also be carried out manually
- **Audio-Visual display panel** to provide easy to read UPS, load and battery status indications.
- **Simple output on/off control** via push buttons on the front of the unit.
- **Variable speed cooling fan** to ensure system optimum operating temperature is maintained.
- **Rack Shelves,** allow mounting of the UPS into telecom/relay racks. The RS500 is designed to allow flush-mounting of the UPS into 19'' wide telecom/relay(single mounting rail type) racks. The RS600 is designed to allow centre mounting of the UPS into 19'' wide telecom/relay (single mounting rail type) racks. The RS700 is designed to allow flush mounting of the UPS into 24'' wide telecom/relay (single mounting rail type) racks. The RS800 is designed to allow centre mounting of the UPS into 24'' wide telecom/relay (single mounting rail type) racks.
- **Rack Slide Kits for GXT 2U Models**, telescoping slide rails that mount to the sides of the rackmount UPS to facilitate installation into a rackmount enclosure. RS18-26 rack slides are adjustable from 18 to 26 inches - RS24-32 rack slides are adjustable from 24 to 32 inches.
- **GXT 700 and 1000VA** in Mini Tower configuration will be still available to satisfy specific clients needs and requests (shape, dimensions**).**
- **CE Mark**: GXT 2U 230V models are all CE marked **–** 120V models are UL and c-UL listed.
- **Two year standard warranty** covering parts and labour – warranty extentions (1 or 3 years) available

SPECIFICATIONS

	RackTower models (GXT 2U)				
Model Number	**GXT2U-700RT230**	**GXT2U-1000RT230**	**GXT2U-1500RT230**	**GXT2U-2000RT230**	**GXT2U-3KRT230E**
Model Rating VA/W	700 / 490	1000 / 700	1500 / 1050	2000 / 1400	3000 / 2100
Technology	On line				
Input AC Parameters					

Voltage Range	230 VAC nominal, (119 to 280 VAC Variable based upon output load)				
Frequency	40 - 70 Hz; Auto Sensing				
Output AC Parameters					
Voltage	200/208/220/230/240 (user configurable) VAC; plus/minus3%				
Frequency	50 Hz or 60 Hz (user configurable)				
Waveform	Sinewave				
Battery Parameters					
Type	Valve-regulated, non spillable, flame retardant, lead acid				
Quantity x Voltage x Rating	4 x 12V x 7.0 x or 7.2 AH			4 x 12V x 9.0 AH	6 x 12V x 9.0 AH
Hot swappable batteries	yes				
Battery Mfg/Part #	China Storage Battery / CSB FR 1270 F2				
Battery Back-up Time					
Typical Load	24 minutes	13 minutes	10 minutes	10minutes	10 minutes
Half Load	44 minutes	25 minutes	20 minutes	14 minutes	16 minutes
Recharge Time	5 Hours to 95% capacity after full discharge into 100% load				
Connections					
Input sockets	EN 60320/C14				EN 60320/C20
Output sockets	(4) EN 60320/C13				(4) EN 60320/C13 - (1) EN 60320/C19
DB9 Communication port	Yes (Serial communication)				
Dimension and Weights					
Dimensions w x d x h (mm)	89(2U) x 546 x 432 (19'')				89(2U) x 615 x 432 (19'')
Shipping Dimensions w x d x h	268 x 692 x 585				
Net Weight, Kg	22	23	23	25	34
Gros Weight, Kg	27	27	27	28,4	35,4
Operating Environment					
Operation temperature	0°C to +40°C (+32°F to +104°F)				
Storage Temperature	-15°C to +50°C (+5°F to +122°F)				
Relative Humidity	0% to 95%, non-condensing				
Packaging					
N° of input cables included	Use the cable provided with your server				1 (16 Amp)
N° of output cables included	2				
Multilink software CD	yes				
Multilink communication cable	yes				
User Configuration Kit	yes				
MiniTower Kit	yes				
Rack Mounting handles	yes				
Rack Mounting support rails	(Please look for details into this document) No				
Standard warranty	2 years				
Warranty extension (1 or 3 years)	Available				
Agency					
Safety	EN 50091-1-1, CE compliance mark, for both Low Voltage and EMC Directives				
RFI/EMI	EN 50091-2, Class				
Surge Immunity	EN 61000 4-2, 4-3, 4-4, 4-5				
Transportation	ISTA Procedure 1A				

Unit Ratings and Autonomy Times

The UPStation GXT2U has one set of internal batteries fitted as standard. The units can also be fitted with extended battery cabinets if longer autonomy times are required. There is no limitation in the number of battery cabinets you can add (of course the recharge time will increase accordingly). These extended batteries are housed in 2U cabinets with styling to match the UPS.

All extended battery cabinets provide fuse protection for their additional batteries and can be hot-swapped without the need to shutdown the UPS or remove it from the rack enclosure.
The following tables give approximate autonomy times (in minutes) at the stated load levels.

Standard Unit

		Approximate Autonomy (mins) At Stated Load			
Part Number	**Unit Rating**	**20%**	**50%**	**80%**	**100%**
GXT2-700RT230	700VA/490W	115	44	24	17
GXT2-1000RT230	1000VA/700W	87	25	13	11
GXT2-1500RT230	1500VA/1050W	83	20	10	7
GXT2-2000RT230	2000VA/1400W	33	14	8	6
GXT2-3KRT230E	3000VA/2100W	46	16	8	5

Standard Unit plus One Extended Battery Cabinet

		Approximate Autonomy (mins) At Stated Load			
Part Number	**Unit Rating**	**20%**	**50%**	**80%**	**100%**
GXT2-700RT230	700VA/490W	460	176	96	68
GXT2-1000RT230	1000VA/700W	348	100	52	44
GXT2-1500RT230	1500VA/1050W	332	80	40	28
GXT2-2000RT230	2000VA/1400W	99	42	24	18
GXT2-3KRT230E	3000VA/2100W	184	64	32	20

Standard Unit plus 2 External Battery Cabinet

		Approximate Autonomy (mins) At Stated Load			
Part Number	**Unit Rating**	**20%**	**50%**	**80%**	**100%**
GXT2-700RT230	700VA/490W	920	352	192	136
GXT2-1000RT230	1000VA/700W	696	200	104	88
GXT2-1500RT230	1500VA/1050W	664	169	80	56
GXT2-2000RT230	2000VA/1400W	231	98	56	42
GXT2-3KRT230E	3000VA/2100W	368	128	64	40

Unit Part Numbers and List Prices
Effective 20-Jun-2001

Description	Part Number	
UPStation GXT 2U Equipment		
GXT 2U 700VA, 230V, 50/60Hz, RackTower	GXT2-700RT230	
GXT 2U 1000VA, 230V, 50/60Hz, RackTower	GXT2-1000RT230	
GXT 2U 1500VA, 230V, 50/60Hz, RackTower	GXT2-1500RT230	
GXT 2U 2000VA, 230V, 50/60Hz, RackTower	GXT2-2000RT230	
GXT 2U 3000VA, 230V, 50/60Hz, RackTower	GXT2-3000RT230	
GXT 2U 48V Extended Battery Cabinet	GXT2-48VBATT	
GXT 2U 72V Extended Battery Cabinet	GXT2-72VBATT	
UPStation GXT Equipment		
GXT 700VA, 230V, 50/60Hz, MiniTower	GXT700MT-230	
GXT 1000VA, 230V, 50/60Hz, MiniTower	GXT1000MT-230	
Options		
IntelliSlot user installable SNMPWEB Card	SNMPWEBCARD	
10A 2U POD (for GXT 700VA, 1000VA, and GXT2U 700 to 2000VA)	MP2-210K	
16A 2U POD (for GXT2U 3000VA)	MP2-220L	
10A Micro POD (for GXT 700VA, 1000VA, and GXT2U 700 to 2000VA)	MP-210K	
16A Micro POD (for GXT2U 3000VA)	MP-210L	
Rack Slide Kits		
All Models, For Racks with 18'' – 26'' Deep support Rails	RS18-26	
All Models, For Racks with 24'' – 32'' Deep support Rails	RS24-32	
Telecom/Relay Rack Shelves		
Flush-mount shelf for 19'' wide telecom/relay racks	RS500	
Center-mount shelf for 19'' wide telecom/relay racks	RS600	
Flush-mount shelf for 24'' wide telecom/relay racks	RS700	
Center-mount shelf for 24'' wide telecom/relay racks	RS800	